



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/692,100	10/20/2000	Hideaki Teshima	107494	9124
25944	7590	02/17/2005	EXAMINER	
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			CHU, KIM KWOK	
			ART UNIT	PAPER NUMBER
			2653	

DATE MAILED: 02/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/692,100

**Applicant(s)**

TESHIMA ET AL.

**Examiner**

Kim-Kwok CHU

**Art Unit**

2653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on Amendment filed on 9/23/04.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 18-21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 and 22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

***Response to Remarks***

1. Applicant's Amendment filed on September 23, 2004 has been fully considered.

(a) Applicant affirms the election of claims 1-17 and 22 with traverse.

(b) Applicant states that the non-elected claims 18-21 should be examined because they have "close relationship between the subject matter of all claims" (page 10 of the Remarks, last paragraph). Accordingly, claims 18-21 direct to a computer program which contains instructions to perform steps of claims 1-17. Since the computer program is a written text stored in an electronic format which is not a position detecting device as in claims 1-17, claims 18-21 are considered not related to claims 1-17.

(c) Applicant states that the prior art of Yanagi do not teach the claimed feature "the second speed is slower than the first speed", a new found prior art of Dodt is used to reject the claims 1-17 and 22.

(d) with respect to Applicant's term "discontinuous position" in the claims, the prior art of Dodt's management information recorded on the tape can be considered as a discontinuous position because it separates two data blocks. Furthermore, the management information is temporary and can be updated.

**Claim Rejections - 35 USC § 102**

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

*A person shall be entitled to a patent unless--  
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.*

3. Claims 1-17 and 22 are rejected under 35 U.S.C. § 102(b) as being anticipated by Dodt et al. (U.S. Patent 5,369,532).

Dodt teaches a tape position detecting device having all of the elements and means as recited in claims 1-13 and

22. For example, Dodt teaches the following:

(a) as in claim 1, the detecting device detects a discontinuous position 900, 904 between recording contents recorded on a recording medium 100 (Figs. 1 and 9; time code and data block Ids are discontinuous positions);

(b) as in claim 1, a scanning unit 332 that scans the recording medium in a first direction (forward) and in a second direction (reverse) that is different from the first direction (Fig. 3; scanning head 332 accesses data addresses on the tape in both forward and reverse directions);

(c) as in claim 1, a first detecting unit (helical read/write head) 320 that detects a temporary discontinuous position located in a vicinity of the actual discontinuous

position while the scanning unit 332 scans the recording medium 100 in the first direction (Fig. 3; a block of data having several sectors is accessed by the helical read/write head 320 after the address detecting unit 332 searches/scans the data block's address);

(d) as in claim 1, a second detecting unit 320 that detects the actual discontinuous position while the scanning unit 332 scans the recording medium 100 in the second direction (Figs. 3 and 9; detecting unit 320 has two read/write heads; one sector of data needs to be erased after the block data of several sectors is read, the erased sector such as the address of the block is the beginning of the block so that the tape needs to be access in reverse direction);

(e) as in claim 1, a scan controller 350 that controls the scanning unit 332 to scan the recording medium 100 at a first scan speed (normal search/scan speed) except while the second detecting unit 320 detects the actual discontinuous position (sector needs to be erased), and to scan the recording medium 100 at a second scan speed (data erased speed) while the second detecting unit 320 detects the actual discontinuous position (Figs. 3 and 9);

(f) as in claim 1, the second scan speed (sector erased speed) being slower than the first scan speed

(inherent feature where the data erase/record speed is slower than the data search/scan speed);

(g) as in claim 2, the second direction is opposite to the first direction (Figs. 3 and 9; forward and reverse search/scan/read/write);

(h) as in claim 3, the scan controller 350 controls the scanning unit 332 to scan the recording medium 100 at the second scan speed in the second direction within a predetermined detection area including therein the actual discontinuous position and the temporary discontinuous position (Figs. 3 and 9; the erased/rewritten address sector is the beginning of the data block which needs to be modified);

(i) as in claim 4, the recording medium 100 records time information indicative of time of recording the recording contents (Fig 2; time code 201 is the time information);

(j) as in claim 5, the time information includes information on dates of recording the recording contents (Figs. 10);

(k) as in claim 6, a time information reader 332 that reads the time information (Figs. 2 and 3);

(l) as in claim 6, the first detecting unit 320 and the second detecting unit 320 detect the temporary discontinuous position and the actual discontinuous

position, respectively, if the time information changes by at least a predetermined time difference (Figs. 2, 3 and 9; both the helical track 204 and longitudinal track contains data ID, time code etc.; the time information changes can be considered as a new target position search such as locating the next frame of the target frame);

(m) as in claim 7, the time information reader includes a display that displays thereon the time information stored in the time information storage unit (Figs 3 and 10; host computer 2 has a display that displays management information of the tape);

(n) as in claim 8, a time difference setting unit 350 that sets the predetermined time difference (Figs. 3 and 5; tape includes administrative information such as start, end of data blocks);

(o) as in claim 9, the first detecting unit 320 detects a plurality of temporary discontinuous positions in a predetermined scan area (Figs. 5 and 9; helical tracks are accessed which includes a plurality of ID addresses);

(p) as in claim 9, second detecting unit 320 detects a plurality of actual discontinuous positions, each of the plurality of temporary discontinuous positions corresponding to one of the plurality of actual discontinuous positions (Figs. 3 and 9; time code or data Ids of certain data sectors are repeatedly read/write);

(q) as in claim 9, scan controller 350 controls the scanning unit 332 to scan the recording medium 100 in the first direction (forward) throughout the predetermined scan area while the first detecting unit 320 detects the plurality of temporary discontinuous positions, and to scan the recording medium 100 in the second direction (reverse) throughout the predetermined scan area while the second detecting unit 320 detects the plurality of actual discontinuous positions (Figs. 3 and 9; helical read/write heads 320 access data block and erase/overwrite a data sector);

(r) as in claim 10, the scan controller 350 controls the scanning unit 332 to keep scanning at the second scan speed (erase/overwrite speed), when any adjacent two temporary discontinuous positions are located in a vicinity of each other (Figs. 3 and 9; address/time-code sectors modifying mode between two data blocks);

(s) as in claim 11, the recording medium 100 further records positional information indicative of a position on the recording medium, the discontinuous position detecting device further comprising a positional information reader that reads the positional information (Figs. 2, 3 and 9; read/write head 332 reads a plurality of tracks in longitudinal direction can be considered a positional information reader);



(t) as in claim 12, the positional information reader 332 has an positional information storage unit that stores the positional information 501, 502 corresponding to the temporary discontinuous position (Figs. 3 and 4; column 2, lines 34-59);

(u) as in claim 13, the scan controller 350 has a detection area setting unit that sets the predetermined detection area based on the positional information corresponding to the temporary discontinuous position stored in the storage unit (Figs. 2, 3 and 9; read/write head 332 reads a plurality of tracks in longitudinal direction can be considered a positional information reader); and

(v) as in claim 22, the recording medium is tape-shaped (Fig. 1).

4. Method claims 14-17 are drawn to the method of using the corresponding apparatus claimed in claims 1, 8, 9 and 10. Therefore method claims 14-17 correspond to apparatus claims 1 and 8-10 and are rejected for the same reasons of anticipation as used above.

### **Conclusion**

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Oyama (6,314,233) is pertinent because Oyama teaches a tape recording apparatus having an image search function.

Sugimura (6,175,683) is pertinent because Sugimura teaches a tape recording apparatus having time-code information.

Iggulden et al. (5,999,688) is pertinent because Iggulden teaches a video player to automatically locate a segment of a recorded program.

Terasawa et al. (5,832,173) is pertinent because Terasawa teaches a video signal recorded on tape and for searching the tape.

Kaaden et al. (5,644,675) is pertinent because Kaaden teaches a method of helical scan of tape having a time code recorded.

6. Any response to this action should be mailed to:  
Commissioner of Patents and Trademarks Washington, D.C.  
20231

or faxed to:  
(703) 872-9306, (for formal communications intended for  
entry)

Or:  
(703) 746-6909, (for informal or draft communications,  
please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal  
Park II, 2021 Crystal Drive, Arlington. VA., Sixth Floor  
(Receptionist).

Any inquiry of a general nature or relating to the  
status of this application should be directed to the Group  
receptionist whose telephone number is (703) 305-4700.

Any inquiry concerning this communication or earlier  
communications from the examiner should be directed to Kim  
CHU whose telephone number is (703) 305-3032.

14c 2/8/05

Kim-Kwok CHU  
Examiner AU2653  
February 8, 2005

(703) 305-3032

  
**TAN DINH**  
**PRIMARY EXAMINER**